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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,652	07/19/2001	Raymond Yinggang Xie	P-87/SYCS-036	3537

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EXAMINER	
NGUYEN, QUYNH H	

ART UNIT	PAPER NUMBER
2642	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/910,652	XIE, RAYMOND YINGGANG	
	Examiner	Art Unit	
	Quynh H Nguyen	2642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 December 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

2. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azuma et al. (U.S. Patent 6,430,150).

Regarding claim 1, Azuma et al. teach the method in a telecommunication network wherein a failure occurs service is switched to the alternative paths (Abstract), the method including the steps of: determining whether a first connection can be established between the first node and the second node (Fig. 5A, between nodes 5 and 6); if the first connection cannot be established (failure), determining whether a second connection (a path connecting nodes 5, 3, 2, 1) can be established between the first node (node 5) and a third node located after the second node (after the second node or node 6 is node 1) (Fig. 5A and col. 7, lines 20-32). Azuma et al. further teach if the failures keep occurring, process according to the path restoration such that an alternated path connecting nodes is set in place of the path on the failed link (col. 7, lines 20-32); consistent computation of alternate paths are obtained at each node and a common computation algorithm for finding alternate paths are used (col. 5, lines 18-30).

Azuma et al. do not detailing suggest if the first and second and third connections cannot be established, determining whether a fourth connection can be established

between the fourth node located before the first node along the first connection path and the third node.

It would have been obvious to one of ordinary skill in the art at the time the invention was made that consistently using Azuma's system is a high-speed restoration system such that alternate path adapted quickly for restoring failures would expand the establishing connections between node Nk and Nk+1. For example, if the first and second connection cannot be established, determining whether a third connection can be established between a fourth node (node 4) located before the first node along the first connection path and the second node (Fig. 5A, node 6) (4, 3, 2, 6); and if the first connection and the second connection and the third connection cannot be established, determining whether a fourth connection can be established between the fourth node (Fig. 5A, node 4) located before the first node along the first connection path and the third node (Fig. 5A, node 1) (4, 3, 2, 1).

Regarding claim 2, Azuma et al. teach the third node (Fig. 2A, B) is immediately after the first node (Fig. 2A, A) and if the first connection and the second connection cannot be established, the fourth node is immediately before the first node (Fig. 5A).

Regarding claims 3, 5, 7, 9, and 11, Azuma et al. teach attempting to determine non-retracing connections. For example, a path connecting nodes 6, 2, 3, and 5 (Fig. 5A and col. 7, lines 20-32).

Regarding claims 4 and 10, Azuma et al. teach establishing a second connection path including the first connection path (col. 7, line 20-25). However, Azuma et al. do not specifically suggest establishing a second connection path including one of the

group of the first connection, the second connection, the third connection and the fourth connection; propagating path information corresponding to the second connection path for a plurality of nodes in the network related to the second connection path. Again, this would have been obviously rejected for the same reasons as discussed above with respect to claim 1.

Claim 6 is rejected for the same reasons as discussed above with respect to claim 1.

Claim 8 is rejected for the same reasons as discussed above with respect to claim 6. Furthermore, Azuma et al. do not explicitly teach if the first connection can be established, restoring the connection C by establishing a connection between the node Nk and Nk+1. Obviously, if the first connection can be established from restoring, then establishing a connection between the nodes that are involved previously.

Regarding claims 12-15 and 17-20, Azuma et al. teach a processor, a memory in communication with the processor, a network interface in communication with the processor (Fig. 9 and col. 10, line 54 through col. 11, line 3).

Regarding claims 16 and 21, Azuma et al. the apparatus is provided at each node of the network (Fig. 1A-2A 4A-5B).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Suzuki (U.S. Patent 6,289,096) teaches call routing method using prioritized source-destination routes. McNeil et al. (U.S. Patent 5,838,769) teach

method of reducing risk that calls are blocked by egress switch or trunk failures. Chaudhary et al. (U.S. Patent 5,142,570) teach routing of network traffic using discrete traffic measurement data. Yamamoto et al. (U.S. Patent 4,991,204) teach adaptive routing control method.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quynh H. Nguyen whose telephone number is 571-272-7489. The examiner can normally be reached on Monday - Thursday from 6:15 A.M. to 4:45 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on 571-272-7488. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Quynh H. Nguyen

Quynh H. Nguyen
Patent Examiner
Art Unit 2642